

**THE AMENDMENTS**

**In the Claims:**

1. (Previously Presented) A method for discriminating p16<sup>INK4a</sup> overexpressing metaplasias from p16<sup>INK4a</sup> overexpressing neoplastic or dysplastic lesions in a uterine cervix sample in the course of cytological testing procedures comprising:
  - a. determining the presence or absence of cells overexpression of p16<sup>INK4a</sup> in said sample;
  - b. determining the presence or absence of cells expressing at least one high risk HPV gene-product in said sample, wherein the high risk HPV gene-product is a polypeptide; and
  - c. assessing simultaneous presence of cells expressing the high risk HPV gene-product and cells overexpressing p16<sup>INK4a</sup>, or the presence of cells overexpressing p16<sup>INK4a</sup> alone;

wherein the simultaneous presence of cells expressing the high risk HPV gene-product and cells overexpressing p16<sup>INK4a</sup> is indicative of neoplastic or dysplastic lesion, and the presence of cells overexpressing p16<sup>INK4a</sup> alone is indicative of metaplasias.

2. (Cancelled)
3. (Previously Presented) The method according to claim 1, wherein the high risk HPV gene-product is encoded by the HPV E7 gene.
4. (Withdrawn-Previously Presented) The method according to claim 1, wherein the high risk HPV gene-product is encoded by HPV E2 and/or E6 genes.
5. (Withdrawn-Previously Presented) The method according to claim 1, wherein the high risk HPV gene-product is encoded by HPV L1 and/or L2 genes.
- 6-10. (Cancelled)
11. (Previously Presented) The method according to claim 1, wherein the sample is a Pap smear or a cytological preparation of the cervix uteri.

12. (Previously Presented) The method according to claim 1, wherein the detection of the HPV gene-products and of p16<sup>INK4a</sup> is performed using one or more probes specific for the HPV gene-products and p16<sup>INK4a</sup>.
13. (Previously Presented) The method according to claim 12, wherein the probe is detectably labelled.
14. (Previously Presented) The method according to claim 13, wherein the label is selected from the group consisting of a radioisotope, a bioluminescent compound, a chemiluminescent compound, a fluorescent compound, a metal chelate, or an enzyme.
15. (Previously Presented) The method according to claim 12, wherein the probe is a polypeptide.
16. (Previously Presented) The method according to claim 15, wherein the probe is an antibody directed against a high risk HPV encoded gene-product or p16<sup>INK4a</sup>.
17. (Original) The method according to claim 16, which comprises an immunocytochemical staining procedure.
- 18-21. (Cancelled)
22. (Previously Presented) The method according to Claim 15, wherein detection of the high-risk HPV gene-product and p16<sup>INK4a</sup> is carried out simultaneously.
23. (Currently Amended) The method according to claim 1, wherein the high risk HPV gene-product is a gene-product of the cancer associated HPV subtypes HPV 16, 18, 31, 33, 35, 39, 45, 51, 52, 56 or 58.
24. (Previously Presented) The method according to claim 1, wherein overexpression of p16<sup>INK4a</sup> and expression of at least one high risk HPV gene-product is simultaneous determined in at least one single cell.
- 25-26. (Cancelled)

27. (Currently Amended) The method according to Claim 1, wherein the presence or absence of cells ~~overexpression of~~ overexpressing p16<sup>INK4a</sup> and the presence or absence of cells expressing the high risk HPV gene-product is determined on a slide preparation.